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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

STORK, KYLE R

ART UNIT PAPER NUMBER

2178

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/750,577

Applicant(s)

FEIG, EPHRAIM

Examiner

Kyle R. Stork

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 16-18, 20-22, 30 and 31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 5-7, 16-18, 20-22, 30 and 31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This final office action is in response to the amendment filed 23 January 2006.
2. Claims 1-3, 5-7, 16-18, 20-22, and 30-31 are pending. Claims 1 and 16 are independent claims. The rejection of claims 1-3, 5-7, 16-18, 20-22, and 30-31 under 35 U.S.C. 103 in view of Venners ("Java's garbage-collected heap: An introduction to the garbage-collection heap of the Java virtual machine," August 1996) and Meyerzon et al. (US 6638314, filed 26 June 1998) and further in view of Hug et al. (US 5806078, patented 8 September 1998) have been withdrawn as necessitated by the amendment.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-6, 16-18, 20-21, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venners ("Java's garbage-collected heap: An introduction to the garbage-collected heap of the Java virtual machine," August 1996) and further in view of Meyerzon et al. (US 6638314, filed 26 June 1998, hereafter Meyerzon), and further in view of Birrell et al. ("Distributed Garbage Collection for Network Objects," 15 December 1993, hereafter Birrell).

As per independent claim 1, Venners discloses a method for managing data referred to by referring data, comprising the steps of:

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- Identifying one or more referring data portions, each of the one or more referring data portions having at least one link pointing to a target data stored in storage (pages 3-4)
- Determining when a link in one or more referring data portions ceases to exist (pages 3-4)
- Enabling removal of the target data from the storage when the one or more links pointing to the target data cease to exist (pages 3-4)

Venners fails to specifically disclose the data portion as being a document and the link as being a hypertext link. However, Meyerzon discloses documents and hyperlinks (column 2, lines 43-55).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Venners's method and Meyerzon's method, since it would have allowed a user to garbage-collect crawled documents (Venners: pages 3-4; Meyerzon: column 2, lines 19-42).

Venners further fails to specifically disclose garbage collection occurring over a network. However, Birrell discloses use of a garbage collector over a network allowing removal of documents when a referral to the document is removed (pages 1-3). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Birrell with Venners, since it would have allowed a user to remove garbage over a network (Birrell: pages 1-3).

As per dependent claim 2, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Meyerzon

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further discloses documents stored in different storage locations coupled over a network (column 1, lines 12-25).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Venners and Meyerzon's method with Meyerzon's method, since it would have allowed a user to garbage-collect crawled documents (Venners: pages 3-4; Meyerzon: column 2, lines 19-42).

As per dependent claim 3, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses the method wherein the one or more referring data portions and the target data are in the same storage device (page 1: Here the same storage is the heap).

As per dependent claim 5, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses decrementing a counter when a link ceases to exist (pages 3-4).

As per dependent claim 6, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 5, and the same rejection is incorporated herein. Venners further discloses determining whether the count for the counter of the target data equals zero (pages 3-4).

As per independent claim 16, the applicant discloses the limitations similar to those in claim 1. Claim 16 is similarly rejected.

As per dependent claim 17, the applicant discloses the limitations similar to those in claim 2. Claim 17 is similarly rejected.

As per dependent claim 18, the applicant discloses the limitations similar to those in claim 3. Claim 18 is similarly rejected.

As per dependent claim 20, the applicant discloses the limitations similar to those in claim 5. Claim 20 is similarly rejected.

As per dependent claim 21, the applicant discloses the limitations similar to those in claim 6. Claim 21 is similarly rejected.

As per dependent claim 30, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses wherein a link pointing to target data ceases to exist when the link is deleted (pages 3-4).

As per dependent claim 31, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Venners further discloses wherein a link pointing to a target data ceases to exist when a referring portion of data having the link is deleted (pages 3-4).

5. Claims 7 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venners, Meyerzon, and Birrell and further in view of Hug et al. (US 5806078, patented 8 September 1998, hereafter Hug).

As per dependent claim 7, Venners, Meyerzon, and Birrell disclose the limitations similar to those in claim 6, and the same rejection is incorporated herein. Venners and Meyerzon fail to specifically disclose wherein if the counter equals zero, further sending a message to an author of the target document asking whether the author wants to

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delete the target document from storage. However, Hug discloses sending a message to an author of the target document asking whether the author wants to delete the target document from storage (column 11, lines 15-20).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Venners, Meyerzon, and Birrell's method with Hug's method, since it would have allowed a user to ensure that important data is not deleted.

As per dependent claim 22, the applicant discloses the limitations similar to those in claim 7. Claim 22 is similarly rejected.

Response to Arguments

6. Applicant's arguments with respect to claims 1-3, 5-7, 16-18, 20-22, and 30-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R. Stork whose telephone number is (571) 272-4130. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kyle Stork
Patent Examiner
Art Unit 2178



STEPHEN HONG
SUPERVISORY PATENT EXAMINER

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